

Standard conditions		Other laying conditions	
Air temperature	30°C	$I_{\text{standard}} = \text{Standard current rating in air}$ $I_{\text{rated}} = I_{\text{standard}} \times k_1 \times k_2$ $k_1 = \text{Table 1 - Temperature of air}$ $k_2 = \text{Table 2 - Solar variation}$	

Table 1 – Rating factor for variation in ambient air temperature (k1)

Maximum conductor temperature, °C	Air temperature, °C						
	20	25	30	35	40	45	50
70	1.15	1.08	1.00	0.93	0.86	0.78	0.70
80	1.11	1.05	1.00	0.93	0.88	0.81	0.75

Table 2 – Rating factor for direct solar radiation (k2)

Size mm <sup>2</sup>	direct solar radiation			
	16 – 35	50 – 95	120 – 185	240 – 400
Coastal (1000 W/m <sup>2</sup> )	0.68	0.65	0.62	0.59
Highveld (1250 W/m <sup>2</sup> )	0.57	0.53	0.49	0.44

*Disclaimer: The cable rating factors are designed as a guide for calculation of a wide range of cable types and cables sizes. While single rating factors remain reasonably accurate, the more factors that are applied simultaneously, larger possible variances arise. While every effort has been made to ensure the information contained herein is correct, CBI-electric: african cables disclaim responsibility for any action, proceedings, liabilities, claims, damages, costs, losses and expense in relation to, or arising out of any use of the factors. Due to continuous improvement CBI-electric: african cables reserves the right to change the above without notice.*

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